CARBON FINANCE STRATEGIES LLC
Washington DC • Boston MA

BY E

Michael Judge
Director, Renewable & Alternative Energy Division
MA Department of Environmental Resources ("DOER")
100 Cambridge Street, Ste. 1020
Boston MA 02114

January 18, 2016

RE: COMMENTS – Proposed SREC-II 120 MW 'Small Unit' Set-Aside (released January 5, 2016)

Dear Mr. Judge:

This presents short comments of CFS and Kearsarge Renewables LLC on the proposed Set-Aside and accompanying revised Assurance of Qualification Guideline.

CFS is a solar center of excellence that has developed or is developing approximately 30 MW of ground-mounted solar PV facilities in Massachusetts and elsewhere. Kearsarge Renewables, an affiliate of Kearsarge Energy, LP (Watertown MA), has more than 60 MW of PV projects in operation or under development, predominantly in Massachusetts.

The proposed Set-Aside would permanently reserve 120 MW of remaining SREC-II capacity essentially to small rooftop PV installations, thus reducing the current combined SREC-I/II capacity cap from 1600 MW to 1480 MW. With about 654 MW installed under SREC-I and over 570 MW of qualified SREC-II projects in queue as of 4 January 2016, plus at least another 100 MW apparently subscribed since then,[1] this would leave only about 150 MW of SREC-II capacity available for all other PV projects in the Commonwealth. In fact available SREC-II capacity "post Set-Aside" may be significantly less than 150 MW -- many projects with a Net Metering ("NM") assurance may not have filed SQAs yet, and would file *en bloc* if the NM caps are raised.

[1] Telephone communication, DOER (Jan. 11, 2016).

We oppose the Set-Aside *as structured* due to its potentially perverse effects in substance and timing on solar development under established DOER programs. We then recommend ways DOER could mitigate such effects.

1. **Substance**

The proposed Set-Aside would conflict with and substantially undercut established DOER programs like Community Shared Solar ("CSS") and Low-Income Housing ("LIH"). These programs were designed to benefit residential and other small consumers of solar power who cannot feasibly access PV on their own.[2] They do this cost-effectively by allowing *both* the environment *and* groups of small energy consumers simultaneously to receive the benefits of solar PV from relatively large distributed solar facilities (up to 6 MWp) that cost far less on a per-kW basis than "direct" residential rooftop installations, even where rooftop installs may be technically or economically feasible.[3] They have proved their value over the last two years. In fact, they have become a principal PV development route as the scope and predictability of SREC revenues diminished due to Managed Growth phasedowns or other limits.

A 120 MW set-aside for 'small units' (under 25 kW capacity) would substantially constrain future development of CSS, LIH and similar projects that *already* benefit small power consumers. It would do so when uncertainty *already* exists that many PV projects in development may not qualify before the SREC-II cap is exhausted. It would drive up the Commonwealth's average installed cost of solar, when some stakeholders already assert that *current* installed PV costs result in "excessively

[2] CSS also can benefit Towns, under the "private" cap. Thus Towns as well would be prejudiced as a result of the proposed Set-Aside.

[3] Recent analyses indicate that while costs continue to decrease for all types of PV facilities, the installed unit cost of 'utility' scale PV will remain far less vis-a-vis residential rooftop PV. See, e.g., Brattle Group, *Comparative Generation Costs of Utility-Scale and Residential-Scale PV in Xcel Energy's Colorado Service Area* (July 2015) (direct-install residential PV unit costs will be more than double utility-scale costs by 2019). Notwithstanding disparities between "utility scale solar" in MA (6 MWp) and in other states, this cost delta seems certain to continue. For example, Massachusetts wind and snow loads generally will limit optimal rooftop installs while driving their costs well above 'typical' regional or national rooftop baselines, independent of generic shading, roof configuration and roof orientation issues.

high" utility / ratepayer impacts.[4] Moreover, it likely will not protect many "true small units" directly purchased by homeowners -- residential installs to date have been dominated by third-party leases arranged in bulk by national corporate entities. Such entities would receive a Set-Aside windfall.

These outcomes make no sense to us, where DOER already has tilted the playing field towards small PV units through Market Sector A plus exemptions from applying for Cap Assurance queue position. An additional tilt *in the specific form of this Set-Aside* is not necessary to protect future "true small units." Nor is it necessary to protect a DOER Solar Loan Program that largely was meant to support "true small units" while weaning the residential market from problematic third-party leases.[5]

2. Timing

It is difficult to conceive a less opportune moment for DOER to propose a Set-Aside that will hike the Commonwealth's average installed solar costs, reduce the efficiency of the SREC market, and further increase SCO costs to utilities.[6]

The state's rapidly-filling net metering ("NM") caps already have stalled solar development in 175 Massachusetts communities. Competing Beacon Hill bills to raise these caps have been stuck in conference since November. It is unclear whether and how a compromise will be reached. The resulting uncertainty reduces financial visibility into SQA/SREC-II, makes PV projects more difficult to finance, and

[4] Misleadingly, we believe, when the benefit side often missing from these calculations is fairly taken into account. See, e.g., NREL, *A Retrospective Analysis of the Benefits and Impacts of U.S. Renewable Portfolio Standards* (Jan. 6, 2016) (average RPS economic benefits for wind & solar far outweigh costs, even without counting related reductions in wholesale power prices or distributed-generation grid benefits).

[5] See, e.g., file:///C:/Users/mhlevin/Documents/CFS.MA.DOER.Solar Loan program details.MassCEC.12-2015.htm (accessed 1-12-16)

[6] These effects would flow from several related factors, including: small units' higher per-kW install costs; "true small units'" need for aggregators to access the SREC market; and additional transactions costs from attempting to qualify residential PV candidates with questionable credit.

threatens to chill future PV development, notwithstanding the recent federal tax-credit extension.[7]

One of those bills (H.B. 3854) would effectively create a statewide freeze. In exchange for a small NM cap increase that analysts predict would be exhausted in less than six months, it generally would reduce the value of NM credits from retail-level electricity rates to approximately 5¢ per kWh -- a 75+% cut in traditional NM project revenues. It also would make that cut retroactive in significant respects, while imposing new "fair share" charges for alleged solar 'utility system costs' that do not fully reflect distributed-solar benefits to utilities.[8]

H.B. 3854's approach would make *any* NM cap increase (no matter how large) an empty box. NM projects have been a main engine for the Commonwealth's status as a national renewable-energy model. But few NM projects would 'pencil out' and get built over the next several years, at what amount to 5¢ rates for their power.

Importantly, *the principal argument for this bill is an assertion that "solar's impacts on ratepayers are excessive" even now.* Adding fuel to this fire by a proposed Small Unit Set-Aside that will further increase average solar costs and alleged ratepayer impacts seems ill-timed and unwise. This seems especially true because the proposed Set-Aside also will limit PV's ability to *strengthen* grid reliability.[9]

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[7] Fear that the federal 30% Investment Tax Credit would expire for PV facilities not "in service" by December 31, 2016 has driven a surge of development (exceeding DOER projections) over the last 18 months. Due to the 5-year ITC "begin construction" extension, this frenzied national development pace is expected to moderate. Nevertheless, regardless of tax credits, projects generally cannot be financed and built without acceptable off-takers. For most pending MA PV capacity, this means predictable access to NM "off-takers."

[8] Such benefits include: less need for capital- and O&M-intensive central power stations; less reliance on power from volatile=priced fossil-fuels; reduced energy demands on the grid; greater overall grid reliability; and increased grid resilience where (as with CSS and LIH projects) distributed PV is three-phase and therefore can provide voltage regulation plus other ancillary services.

[9] Many residential PV installs will be connected to single-phase distribution lines, making them ineligible under current FERC principles to provide ancillary services through battery storage or other means. Only CSS, LIH, or other three-phase installations can provide such grid benefits.

3. Recommendations

DOER can mitigate the perverse effects noted above. We urge that it:

(a) ***Neutrally*** **withdraw the proposed Set-Aside until the current legislative stalemate is resolved.** This can avoid skewing that debate in ways that potentially contravene DOER's solar goals; then

(b) **Propose a much smaller set-aside (for example, 50 MW)** targeted to protect "true small units" purchased by homeowners rather than units leased by large entities who primarily would benefit from an undifferentiated set-aside; and/or

(c) **Include CSS and LIH projects in the new set-aside** on grounds that their goals -- benefitting small PV consumers -- are the same as the set-aside. This also would help mitigate concerns that residential solar is only "for the rich" or those who can secure credit enhancement; and/or

(d) **Hold harmless with respect to any set-aside CSS, LIH and similar projects that primarily benefit small PV consumers,** by **raising the overall SREC-II cap in an amount equal to any "small unit" set-aside**, with this cap increase limited solely to such projects. DOER has discretion under the Green Communities Act to make this adjustment, as confirmed by its creation of the entire SREC-II program.

(e) Conspicuously announce and launch **a special enforcement program targeting Assurance recipients who evade the Guideline's intent.** We suspect that a significant number of ACA applicants do not have all "non-ministerial permits" in hand under Guideline § 4(a)(3). Such projects may have a Town planning or zoning permit, but also require an affirmative ConComm determination. Rather than pursue this determination as a predicate to Assurance, they defer ConComm proceedings. They can do this because DOER currently has no ready way to discover that wetlands or species clearance is required for specific parcels or array configurations – or that such clearance has been issued following an SQ. As a result, the queue may be manipulated and scarce queue positions pre-empted.

This is a matter of fundamental program integrity which should be confirmed and, if confirmed, addressed. ACA applicants found to have engaged in such tactics should have *all their projects* prohibited from SREC-II.[10]

We additionally urge DOER to **make two small modifications to the Guideline**:

- Confirm that projects relegated to the SREC-II "waiting list" for lack of available SREC-II program capacity **still may claim Class I RECs for their net renewable electricity production,** *both* until they receive an SREC-II allocation *and* for any production not covered by that allocation. We understand this is current policy but believe confirming it in the Guideline would be helpful.

- Add *force majeure* to the circumstances justifying an extended reservation period under Guideline §5(b). We are aware Guideline §9 already authorizes general exceptions "for good cause." However, we believe that because §9 contemplates *force majeure* exceptions and that force majeure likely applies in any event as a matter of law, making this explicit under §5(b) also would be helpful.

We appreciate the opportunity to comment on this proposal, and would be pleased to discuss any aspect of these comments.

Thanks as always.

Michael H. Levin
Managing Director & General Counsel

C (e): Andrew Bernstein, Everett Tatelbaum (Kearsarge)

[10] We believe only a few enforcement actions would be needed to resolve this program issue. In fact, a "conspicuous announcement" might go a long way towards achieving that goal.